UNMATCHED LEFT PARENTHESIS '(SAPOSIN' The number of right parentheses in a query must be equal to the number of left parentheses.

=> s saposin (p) blood 44 SAPOSIN (P) BLOOD

=> d ibib abs 1-44

ANSWER 1 OF 44 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

CORPORATE SOURCE:

2004:941423 CAPLUS

TITLE:

AUTHOR (S):

Immunoquantification of α -galactosidase:

Evaluation for the diagnosis of fabry disease

Fuller, Maria; Lovejoy, Melanie; Brooks, Doug A.; Harkin, Miriam L.; Hopwood, John J.; Meikle, Peter J.

Lysosomal Diseases Research Unit, Department of

Genetic Medicine, Women's and Children's Hospital,

North Adelaide, Australia

SOURCE:

Clinical Chemistry (Washington, DC, United States)

(2004), 50(11), 1979-1985

CODEN: CLCHAU; ISSN: 0009-9147

PUBLISHER: DOCUMENT TYPE: American Association for Clinical Chemistry

Journal English

LANGUAGE:

Background: Fabry disease is an X-linked inborn error of

glycosphingolipid

catabolism resulting from a deficiency of the lysosomal exoglycohydrolase,

lpha-galactosidase. Enzyme replacement therapy is currently available for Fabry disease, but early diagnosis before the onset of irreversible pathol. will be mandatory for successful treatment. Presymptomatic detection would be possible through the use of a newborn-screening program. We report on the use of sensitive assays for the measurement of α -galactosidase protein and activity and for the protein saposin C, which are diagnostic markers for Fabry disease. Methods: Two sensitive immunoassays for the measurement of $\alpha\text{-galactosidase}$ activity and protein were used to determine the concist of α -galactosidase in dried filter-paper **blood** spots and plasma samples from control patients and patients with a lysosomal storage

disorder (LSD). Results: Fabry hemizygous individuals were clearly identified from control populations by decreases in both α -galactosidase activity and protein. Fabry heterozygotes generally fell between the hemizygotes and controls. Including the measurement of saposin C enabled differentiation between Fabry heterozygotes and controls. In blood spots, all Fabry individuals could be distinguished from control blood spots as well as from 16 other LSD patients. Conclusions: The determination of α -galactosidase activity or

protein in dried filter-paper blood spots could be used for the diagnosis of Fabry patients. With further validation, these assays could be used for the identification of Fabry patients in newborn-screening programs and may also be suitable for screening high-risk populations. REFERENCE COUNT: THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

ANSWER 2 OF 44 CAPLUS COPYRIGHT 2004 ACS on STN ACCESSION NUMBER: 2004:817730 CAPLUS

Welcome to STN International! Enter x:x

LOGINID:ssspta1641ayl

PASSWORD:

* * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * SESSION RESUMED IN FILE 'CAPLUS, BIOSIS, MEDLINE, EMBASE' AT 18:10:15 ON 09 DEC 2004 FILE 'CAPLUS' ENTERED AT 18:10:15 ON 09 DEC 2004 COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS) FILE 'BIOSIS' ENTERED AT 18:10:15 ON 09 DEC 2004 Copyright (c) 2004 The Thomson Corporation. FILE 'MEDLINE' ENTERED AT 18:10:15 ON 09 DEC 2004 FILE 'EMBASE' ENTERED AT 18:10:15 ON 09 DEC 2004 COPYRIGHT (C) 2004 Elsevier Inc. All rights reserved. COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 324.93 325.14 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION CA SUBSCRIBER PRICE -37.80 -37.80 => file .bio COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 324.93 325.14 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL

ENTRY

-37.80

SESSION

-37.80

FILE 'CAPLUS' ENTERED AT 18:10:27 ON 09 DEC 2004 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'BIOSIS' ENTERED AT 18:10:27 ON 09 DEC 2004 Copyright (c) 2004 The Thomson Corporation.

FILE 'MEDLINE' ENTERED AT 18:10:27 ON 09 DEC 2004

FILE 'EMBASE' ENTERED AT 18:10:27 ON 09 DEC 2004 COPYRIGHT (C) 2004 Elsevier Inc. All rights reserved.

=> s saposin L8 1288 SAPOSIN

CA SUBSCRIBER PRICE

=> s (saposin (p) (blood or serum or urine or amniotic)
UNMATCHED LEFT PARENTHESIS '(SAPOSIN'
The number of right parentheses in a query must be equal to the number of left parentheses.

=> s (saposin (p) (blood)

```
3 FILES SEARCHED...
           646 SAPOSIN (1W) (A OR C OR D)
=> s ((saposin) (lw) (a or c or d)) (p) blood
   3 FILES SEARCHED..
T.11
            28 ((SAPOSIN) (1W) (A OR C OR D)) (P) BLOOD
=> d ibib abs 1-28
L11 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:
                          2004:941423 CAPLUS
TITLE:
                          Immunoquantification of \alpha-galactosidase:
                          Evaluation for the diagnosis of fabry disease
AUTHOR(S):
                          Fuller, Maria; Lovejoy, Melanie; Brooks, Doug A.;
                         Harkin, Miriam L.; Hopwood, John J.; Meikle, Peter J.
                         Lysosomal Diseases Research Unit, Department of
CORPORATE SOURCE:
                         Genetic Medicine, Women's and Children's Hospital.
                         North Adelaide, Australia
SOURCE:
                         Clinical Chemistry (Washington, DC, United States)
                          (2004), 50(11), 1979-1985
                         CODEN: CLCHAU; ISSN: 0009-9147
                         American Association for Clinical Chemistry
PUBLISHER:
DOCUMENT TYPE:
                         Journal
LANGUAGE:
                         English
     Background: Fabry disease is an X-linked inborn error of
qlycosphingolipid
     catabolism resulting from a deficiency of the lysosomal
exoglycohydrolase,
     \alpha-galactosidase. Enzyme replacement therapy is currently available
     for Fabry disease, but early diagnosis before the onset of irreversible
     pathol. will be mandatory for successful treatment. Presymptomatic
     detection would be possible through the use of a newborn-screening
     program. We report on the use of sensitive assays for the measurement of
     \alpha-galactosidase protein and activity and for the protein
     saposin C, which are diagnostic markers for Fabry
     disease. Methods: Two sensitive immunoassays for the measurement of
     \alpha-galactosidase activity and protein were used to determine the concns.
     of \alpha-galactosidase in dried filter-paper blood spots and
     plasma samples from control patients and patients with a lysosomal
storage
     disorder (LSD). Results: Fabry hemizygous individuals were clearly
     identified from control populations by decreases in both
     \alpha-galactosidase activity and protein. Fabry heterozygotes generally
     fell between the hemizygotes and controls. Including the measurement of
     saposin C enabled differentiation between Fabry
     heterozygotes and controls. In blood spots, all Fabry
     individuals could be distinguished from control blood spots as
     well as from 16 other LSD patients. Conclusions: The determination of
     lpha-galactosidase activity or protein in dried filter-paper
    blood spots could be used for the diagnosis of Fabry patients.
    With further validation, these assays could be used for the
identification
     of Fabry patients in newborn-screening programs and may also be suitable
     for screening high-risk populations.
REFERENCE COUNT:
                         19
                               THERE ARE 19 CITED REFERENCES AVAILABLE FOR
THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT
```

L11 ANSWER 2 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN

that this precursor cell in the digesting macrophage system also has an impaired metabolic catabolism for lipopigments (3). Immunohistochemical studies indicate that microglial reaction in NCL brain is limited to resident microglia without contribution by circulating monocytes (4). The granular osmiophilic deposit (GROD) type of NCL has now been established not only in infantile, but also in late-infantile, juvenile, and protracted-juvenile NCL (5). A European Tissue Registry established within

the framework of a European Concerted Action on Neuronal Ceroid-Lipofuscinosis may form the basis for additional collaborative studies on NCL, including both biopsy and autopsy tissues.

ANSWER 44 OF 44 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.

on STN

ACCESSION NUMBER:

90030178 EMBASE

DOCUMENT NUMBER:

1990030178

TITLE:

Sphingolipid hydrolase activator proteins and their

precursors.

AUTHOR:

Sano A.; Hineno T.; Mizuno T.; Kondoh K.; Ueno S.;

Kakimoto

Y.; Inui K.

CORPORATE SOURCE:

Department of Neuropsychiatry, Ehime University School of

Medicine, Ehime 791-02, Japan

SOURCE:

Biochemical and Biophysical Research Communications,

(1989)

165/3 (1191-1197).

ISSN: 0006-291X CODEN: BBRCA

COUNTRY: DOCUMENT TYPE: United States Journal; Article

FILE SEGMENT:

025 Hematology 029 Clinical Biochemistry

LANGUAGE:

English

SUMMARY LANGUAGE:

English

Activator proteins for sphingolipid hydrolases (saposins) are small acidic, heat-stable glycoproteins that stimulate the hydrolysis of sphingolipids by lysosomal enzymes. The molecular mass of each stimulator is about 10 kDa, but glycosylated forms of higher mass exist too. The distribution and developmental changes in two saposins and their precursor proteins were studied with the aid of monospecific antibodies against saposin-B and saposin-C. They show a wide distribution in rat organs and forms intermediate between saposin and prosaposin (the precursor protein containing four different saposin units) could be seen. The amount of saposin and the degree of processing from prosaposin are quite different in different tissues. The saposins are the dominant forms in spleen, lung, liver, and kidney, while skeletal muscle, heart, and brain contain mainly precursor forms. In human blood, leukocytes contain mainly saposin, while plasma contains mainly precursor forms and platelets show many forms. Their subcellular distribution was studied using rat liver. The saposins of approximately 20 kDa are dominant in the light mitochondrial, mitochondrial, and microsomal fractions, following the distribution of the activity of a lysosomal marker enzyme. The nuclear fraction exhibits bands corresponding to non-glycosylated saposin. The soluble fraction contained much precursor forms. A developmental study of rat brain showed that the concentration of saposin precursors increased with age.

developed by creating a null allele in embryonic stem cells through gene targeting to investigate the phenotypic diversity of prosaposin mutations and the involvement of this protein in lysosomal storage diseases, and

for

the development of therapeutic approaches. Mice homozygous mutants die

the age of 35-40 days and neurological disorders contribute to the early demise of the mutant mice. The male reproductive organs in homozygous mutants show several abnormalities, such as a decrease in testis size

with

reduced spermiogenesis and an involution of the prostate, seminal vesicles, and epididymis. In these animals, the blood levels of testosterone remain normal. In the prostate of homozygous mutants, only the basal epithelial cells appear to be present, while the secretory

are absent. These findings suggest that prosaposin may be involved in the

development and maintenance of the male reproductive organs, as well as, in cellular differentiation.

L11 ANSWER 22 OF 28 ACCESSION NUMBER:

MEDLINE on STN 90121224 MEDLINE PubMed ID: 2610686

DOCUMENT NUMBER: TITLE:

Sphingolipid hydrolase activator proteins and their

precursors.

AUTHOR:

Sano A; Hineno T; Mizuno T; Kondoh K; Ueno S; Kakimoto Y;

Inui K

CORPORATE SOURCE:

Department of Neuropsychiatry, Ehime University School of

Medicine, Japan.

SOURCE:

Biochemical and biophysical research communications,

Dec 29) 165 (3) 1191-7.

Journal code: 0372516. ISSN: 0006-291X.

PUB. COUNTRY:

United States

DOCUMENT TYPE:

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE:

English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

199002

ENTRY DATE:

Entered STN: 19900328

Last Updated on STN: 19900328 Entered Medline: 19900213

Activator proteins for sphingolipid hydrolases (saposins) are small AB acidic, heat-stable glycoproteins that stimulate the hydrolysis of sphingolipids by lysosomal enzymes. The molecular mass of each stimulator

is about 10 kDa, but glycosylated forms of higher mass exist too. distribution and developmental changes in two saposins and their

proteins were studied with the aid of monospecific antibodies against saposin-B and **saposin-C**. They show a wide distribution in rat organs and forms intermediate between saposin and prosaposin (the precursor protein containing four different saposin units)

could be seen. The amount of saposin and the degree of processing from prosaposin are quite different in different tissues. The saposins are the

dominant forms in spleen, lung, liver, and kidney, while skeletal muscle, heart, and brain contain mainly precursor forms. In human blood , leukocytes contain mainly saposin, while plasma contains mainly precursor forms and platelets show many forms. Their subcellular distribution was studied using rat liver. The saposins of approximately

20 kDa are dominant in the light mitochondrial, mitochondrial, and microsomal fractions, following the distribution of the activity of a lysosomal marker enzyme. The nuclear fraction exhibits bands corresponding to non-glycosylated saposin. The soluble fraction

much precursor forms. A developmental study of rat brain showed that the concentration of saposin precursors increased with age.

L11 ANSWER 23 OF 28 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.

on STN

ACCESSION NUMBER:

2004460372 EMBASE

TITLE:

Immunoquantification of α -galactosidase: Evaluation

for the diagnosis of fabry disease.

AUTHOR:

Fuller M.; Lovejoy M.; Brooks D.A.; Harkin M.L.; Hopwood

J.J.; Meikle P.J.

CORPORATE SOURCE:

M. Fuller, Lysosomal Diseases Research Unit, Department of Genetic Medicine, Women's and Children's Hospital, 72 King

William Rd., North Adelaide, SA 5006, Australia.

maria.fuller@adelaide.edu.au

SOURCE:

Clinical Chemistry, (2004) 50/11 (1979-1985).

Refs: 19

ISSN: 0009-9147 CODEN: CLCHAU

COUNTRY:

United States

DOCUMENT TYPE:

Journal; Article

FILE SEGMENT:

007 Pediatrics and Pediatric Surgery

029 Clinical Biochemistry

LANGUAGE:

English

SUMMARY LANGUAGE:

English Background: Fabry disease is an X-linked inborn error of

glycosphingolipid

catabolism resulting from a deficiency of the lysosomal exoglycohydrolase,

lpha-galactosidase. Enzyme replacement therapy is currently available for Fabry disease, but early diagnosis before the onset of irreversible pathology will be mandatory for successful treatment. Presymptomatic detection would be possible through the use of a newborn-screening program. We report on the use of sensitive assays for the measurement of α -galactosidase protein and activity and for the protein saposin C, which are diagnostic markers for Fabry disease. Methods: Two sensitive immunoassays for the measurement of lpha-galactosidase activity and protein were used to determine the concentrations of α -galactosidase in dried filter-paper blood spots and plasma samples from control patients and patients with a lysosomal storage disorder (LSD). Results: Fabry hemizygous individuals were clearly identified from control populations by decreases in both α -galactosidase activity and protein. Fabry heterozygotes generally fell between the hemizygotes and controls. Including the measurement of saposin C enabled differentiation between Fabry heterozygotes and controls. In blood spots, all Fabry individuals could be distinguished from control blood spots as well as from 16 other LSD patients. Conclusions: The determination of α -galactosidase activity or protein in dried filter-paper blood spots could be used for the diagnosis of Fabry patients. With further validation, these assays could be used for the identification of Fabry patients in newborn-screening programs and

may

also be suitable for screening high-risk populations. .COPYRGT. 2004 American Association for Clinical Chemistry.

